



College of Biomedical Equipment Technology (CBET)

Externship Guide

04 July 2020

11550 IH-10 West, STE 190
San Antonio, TEXAS 78230
844.879.9043

WWW.CBET.EDU



CBET is Accredited by the Accrediting Council for Continuing Education & Training (ACCET)

ACCET is listed by the U.S. Department of Education as a Nationally Recognized Accrediting Agency

MISSION STATEMENT

The College of Biomedical Equipment Technology's (CBET) mission is to provide Healthcare Technology Management (HTM) education, training and career services consistent with the evolving needs of employers in the healthcare industry.

VISION

The College of Biomedical Equipment Technology will provide nationally recognized biomedical equipment and healthcare technology management educational and professional opportunities that meet the needs of our students and are responsive to the needs of the healthcare community.

VALUES

Our core values guide us to accomplish our mission and achieve our vision:

Committed to Delivering a World-Class Education on Demand: We are committed to providing world-class education, training, and career services in an online format, emphasizing applied instruction focused on state-of-the-art equipment, led by skilled faculty with real-world experience.

Committed to Lifelong Learning and the Professional Development of our Students: Our commitment to our student extends beyond the limits of the classroom. Through continuing careers services, mentorship, and support, we foster lifelong learning and professional development designed to strengthen the relationship we share with our students, alumni and partners in the healthcare industry.

Committed to our Strategic Partners: We partner with business and industry to keep pace and better understand global healthcare technology and cyber security trends. Through our strategic alliances we ensure our curriculum and instruction prepare our graduates to compete successfully in a rapidly evolving and increasingly technical healthcare environment.

Committed to Community: We believe in fostering a learning community in which the values, goals, and learning styles of students are recognized and supported. We are committed to the belief that diversity strengthens learning and actively seek opportunities to leverage the experiences, perspectives, and ideas of our students.

Committed to Integrity and Excellence in Education: We believe in the importance of maintaining the highest ethical standards and integrity in all that we do. We also expect the same in our students and incorporate professional business ethics and communications in our courses of instruction. At the College of Biomedical Equipment Technology, our word is our bond.

SCHOOL OVERVIEW

CBET provides Biomedical Equipment Technician and Healthcare Technology Management (HTM) training at the certificate and associates degree levels. Theoretical instruction is offered via on-line interactive distance learning consistent with global healthcare technology and cyber security requirements. Students enrolled in the Associate of Applied Science Degree in Biomedical Equipment Technology (AAS-BMET) Online program also participate in an onsite externship. Our training system provides interactive instruction through our Canvas Learning Management System and includes online meetings via Zoom® Video Conferencing during the AAS- BMET externship.

EXTERNSHIPS

CBET maintains a nationwide network of strategic alliances with healthcare systems, hospitals, original equipment manufacturers and independent service providers to supporting externship, training, and career services activities. The strategic alliances serve our school, our students, and are network of partners by ensuring the healthcare industry has access to a knowledgeable and skilled workforce capable of meeting the evolving and increasingly technical needs of the industry.

Externships are a vital component of the Associate of Applied Science Degree in Biomedical Equipment Technology (AAS-BMET) Online program. The 135-hour externship provides students with opportunities to put theory and knowledge to work to develop skills in real-world environments. Externships also provide opportunities for potential employers to shape and develop students to meet the unique requirements of their healthcare systems or hospitals. In so doing, many externship providers offer employment to the graduates of CBET programs. Pairing our highly qualified students with industry leaders is a principle objective of our college.

College of Biomedical Equipment Technology is Accredited by the [Accrediting Council for Continuing Education & Training \(ACCET\)](#). CBET is also Approved and Regulated by the Texas Higher Education Coordinating Board (THECB), and the Texas Workforce Commission (TWC), Career Schools and Colleges, Austin, Texas.

About our Team

EXECUTIVE TEAM

Bill Bassuk, MBA
President
bbassuk@cbet.edu

Richard “Monty” Gonzales, MA
College Director
rgonzales@cbet.edu

Scott Mcknight, MBA
Director of Education
smcknight@cbet.edu

ADMINISTRATIVE TEAM

Rebecca Busacca, MS
Chief Strategy Officer
rbusacca@cbet.edu

Lisa Gonzales, AS
Human Resources (HR)
lgonzales@cbet.edu

Julissa Garibay
Student Outreach
jgaribay@cbet.edu

Matt Bassuk, MS
Chief Technology Officer
mbassuk@cbet.edu

Jimmy Gomez, MS
College Representative
jgomez@cbet.edu

Manny Ortega, MBA
Externship Coordinator
mortega@cbet.edu

Robert Busacca, MS
Operations
rbusacca@cbet.edu

INSTRUCTIONAL STAFF

John Schmidt, BS
Senior Networking & IT Instructor
jschmidt@cbet.edu

Manny Ortega, BS
Electronics Instructor
bisham@cbet.edu

Christian Bond, BS
Senior BMET Instructor
cbond@cbet.edu

Cathy Wells, MA
Healthcare Instructor
cwells@cbet.edu

Brian Clark, MS
Professional Dev. Instructor
bclark@cbet.edu

Michael Uresti, BS
BMET Instructor
muresti@cbet.edu

Guadalupe McKnight, MS
Anatomy and Terminology Instructor
gmcknight@cbet.edu

Victoria Valdez, MA
History Instructor
vvaldez@cbet.edu

Anntonett Gillins, BS
Senior HTM Instructor
agillins@cbet.edu

Zack Nelson, AAS
BMET Instructor
znelson@cbet.edu

Jimmy Gomez, MS
Communications Instructor
jgomez@cbet.edu

OFFICE HOURS OF OPERATION (by appointment)

Monday – Thursday 9:00 am – 5:00 pm, Friday 9:00 am – 12:00 pm

CBET Externship Guide Overview:

This guide contains documents that establish the student-externship relationship for a specified period. This relationship provides CBET AAS-BMET students with an opportunity to practice their newly acquired skills under the guidance of expert professionals. Roles and responsibilities for each member of the CBET academic team are presented in this guide. Students should read the guide in preparing for the 135-hour Externship Course (3 Semester Credit Hours). Externship Supervisors and CBET Externship Coordinators will also use the guide as a reference during the externship experience.

The selection of the externship site and externship qualifications are key to designing an excellent externship experience that will allow students to meet their course learning objectives. It is the student's responsibility to consult with the CBET Externship Coordinators as they negotiate and finalize the agreement. Students should schedule their externship days throughout the externship course. Students will have an opportunity to apply the content learned in the AAS-BMET lecture courses at the externship site. Additionally, students and externship coordinators will have an opportunity to introduce students to specialized equipment and industry best practices.

Externship Responsibilities:

The externship site should provide students with opportunities that allow students to demonstrate satisfactory completion of externship objectives and externship outcomes. Externship Supervisors that wish to enter into a training agreement with CBET should:

- Evaluate CBET's course syllabus, training objectives and evaluation criteria to establish alignment with organizational needs, resources and capabilities.
- Contact CBET to discuss organizational needs and to become a CBET approved Externship Site. Provide a detailed overview of organizational requirements and externship criterion.
- Meet with and interview student(s).
- Sign and complete an Externship Agreement for each student and establish a schedule that aligns with the student's academic schedule and requirements.
- Sign and approve the Student's Weekly Externship Attendance and Competency Forms.
- Address student's questions and learning needs about the externship site.
- Communicate with the CBET Externship Coordinator about the fulfillment of the student's obligations, progress, and employability.
- Oversee the student's externship and work habits; provide guidance, mentorship, and support.
- Orient students to the applicable BMET equipment, software, and customer service and training competencies associated with employment as a BMET.

Externship Supervisor Responsibilities:

Following approval of the Externship Agreement, CBET will designate a supervisor to work directly with the student, externship or designee to:

- Interview and evaluate students
- Ensure the externship placement aligns with course objectives and outcomes
- Orient both the student and the externship to the learning goals of CBET
- Address questions regarding the CBET training program
- Communicate with the externship provider and the student in order to monitor and evaluate the learning

experience

- Monitor student's progress through coaching and supervisory meetings, externship site evaluations and review of student externship review reports and weekly logs
- Ensure the student's externship training and work habits meet the externship's expectations
- Gauge the externship's satisfaction at the end of the course through an externship survey
- Gauge the student's satisfaction at the end of the course through a student satisfaction survey

CBET Student Responsibilities:

Successful externship performance is achieved through the student-externship-CBET relationship. Each member of this team contributes to the student's learning experience. AAS-BMET students must be actively involved in working with the team to arrange and maintain the externship relationship. Students must consult with their CBET Externship Coordinator regarding the appropriateness of an externship site before enrollment in the course.



Externship Selection:

CBET maintains strategic relationships and alignments with healthcare systems, hospitals, original equipment manufacturers and independent service providers supporting externships, curriculum development and career services. For a full list of our national alliances contact the Externship Coordinator, Manny Ortega, at mortega@cbet.edu. It is through our database of national affiliations that we can offer externships at multiple locations, nationally. However, in cases where CBET does not have an externship location near the student's home of record the student is responsible for all externship-related costs (including travel, lodging, meals, and other costs).

CBET's AAS-BMET courses are offered in a structure that promotes the development of specialized healthcare technology knowledge and skill sets starting with the application of basic principles and skills and moving to the application of complex principles and skills related to completed biomedical training courses. As such, students should select externships based on their qualifications to support externship learning objectives and outcomes in the biomedical technology or healthcare technology field. Students should review their course syllabus before beginning the process of externship selection. The externship site should provide learning opportunities that allow students to demonstrate satisfactory completion of the course objectives.

After students have a clear understanding of the learning objectives for their course, they should identify potential externships in their area and follow these steps:

- Set up a meeting and an interview with the externship or designee.
 - Provide the Catalog which includes the coursesyllabus, course objectives, and evaluation criteria
 - Provide a copy of Externship Agreement (see the form in the appendix of this guide)
 - Ask questions about the externship's teaching style, practice setting, and clients

- At the end of the interview, both parties will need to collectively determine if the setting provides appropriate learning opportunities to meet the course learning objectives and outcomes. If both parties agree, the student should request the externship sign and complete the Externship Agreement and establish a schedule that aligns with the course schedule.
- Returning students following a leave of absence, withdrawal, or lapse in training must sign a new agreement.
- The Externship Agreement, schedule, and any documentation provided by the facility and externship must be submitted to CBET.

During the externship experience, students are expected to:

- Complete externship hours before the end of the semester
- Adhere to the schedule of externship hours established in the Externship Agreement.
- Present themselves as ambassadors of CBET's AAS-BMET program as such they are
 - be respectful to externships, facility staff, CBET Externship Coordinators, clients, and their families;
 - conform to the dress of the externship site where the coursework is completed; and
 - express their appreciation individually to their externships for their dedication, mentoring, and teaching at the end of the externship experience.
- Prepare for externship by completing the required readings and assignments and reviewing additional relevant material that will ensure appropriate practice in the externship facility.



College of Biomedical Equipment Technology
11550 IH 10 West, Suite 190
San Antonio, Texas 78230
844.879.9043
www.cbet.edu

Subject: Agreement of Understanding

DATE

This agreement of understanding entered on _____ between the College of Biomedical Equipment Technology (CBET) and (Externship Providers name) hereinafter referred to as "Externship Supervisor", located at (externship site name and address): hereafter referred to as "Externship Site", and CBET, hereafter referred to as "Externship Coordinator", sets forth a mutual agreement, to include at a minimum the following criteria pertaining to (CBET student name): hereafter referred to as "The Student":

Externship Objectives: Under supervision, externs will evaluate basic customer biomedical equipment issues typically within hospitals and/or medical office settings, implement appropriate repairs; as assigned, perform maintenance, safety, and environmental inspections; follow appropriate policies, procedures, hospital or medical office protocol and complete necessary documentation, as guided.

Externship Supervisor agrees that:

1. The Student will be oriented to role appropriate protocols within the externship site such that patient, staff, and student safety are maintained.
2. The Student will be allowed access to the externship site on a routine basis in accordance with CBET externship hours criteria and the established parameters of Externship Site.
3. The Student will be covered by at least the same insurance(s) that the Externship Site affords to visitors, and/or families, and/or non-employed facility guests.
4. The Externship Supervisor will ensure, at a minimum, that the conditions above are met and will affirm, via signature below.

CBET agrees to:

1. Teach and oversee the Student's education in accordance with CBET's standards and protocols.
2. Help the Externship Site engage the Student on any matters of importance.
3. Keep the Externship Supervisor apprised of any known student situations which might adversely impact the student, CBET or the Externship Site.
4. Work diligently to ensure an appropriate and beneficial training engagement.

Mr. Ortega, Externship Coordinator Phone Number: 210.332.3089 Email address: mortega@cbet.edu Signature: _____ Date: _____	Externship Supervisor _____ Phone Number: _____ Email address: _____ Signature: _____ Date: _____
--	---



College of Biomedical Equipment Technology
11550 IH 10 West, Suite 190
San Antonio, Texas 78230
844.879.9043
www.cbet.edu

STUDENT ID

Subject: Technical Competency Form

The technical competency form is to be completed by the Site Externship Supervisor and the CBET Externship Director in order to identify students' strengths and weaknesses used to determine additional training and support requirements. The technical competency form is divided in to three parts, listed as Standards I, II, and III. Additionally, all externs should be introduced to hospital policies, procedures, and specific restrictions associated with their participation in the externship.

Name:	Job Title: Externship
Extern start Date:	
Extern End Date:	

Hospital / Externship Site Policy Review		
	Date	Remarks
1. Review all Applicable Site-Specific Policies		
2. Direct Observation		
3. Video Review/Testing		
4. Skills Lab/Proficiency Testing		
5. Written Exam		
6. Service School		
7. Other		

Site supervisors are advised to use the rating scale below to conduct performance/skills testing and evaluation

Site Supervisor Performance Evaluation/Rating Scale Guidelines	
Evaluation Score	Performance Criteria
5 Task Mastery	Demonstrated mastery; able to operate independently and re-teach and/or explain the evaluated topic; capable of arguing to support diagnosis/analysis of equipment, procedures, and protocol.
4 Evaluate/Analyze	Demonstrated ability to appraise situations in an appropriate context; analyze and conduct appropriate problem solving techniques; test equipment independently and distinguish normal and abnormal functions.
3 Apply and Function	Demonstrated ability to use information in new situations; execute, implement, solve, use, interpret, operate, schedule, and function as a biomedical equipment technician with minimal supervision.
2 Understand & Recalls	Demonstrated comprehension of ideas and concepts; classifies, describes, discusses, explains, identifies, locates, recognizes, reports, selects, and translates information effectively with supervision.
1 Recall	Demonstrated ability to recall facts and basic concepts; define, duplicate, list, memorize, repeat, and state specific tasks; unable to operate effectively without direct supervision.
N/A	

Attendance Tracking					Standards (I)		Site Supervisor Performance Evaluation	
Date Started	Date Completed	Total Hours	Extern Initials	Supervisor Initials			Overall Rating	Date
Environmental Care Competency Checklist								
					1.	Safety-Department specific and Hospital wide safety risks		
					2.	Security-Process for minimizing security risks		
					3.	Haz Mat/Waste-Emergency procedures for spills/MSDS		
					4.	Emergency Preparedness-Role during emergency drills		
					5.	Life Safety-Role in drills/response to fire		
					6.	Med Equipment-Safe equipment operation (see list)		
					7.	Utility Systems-Emergency procedures for utility failures		
Infection Control Competency Checklist								
					1.	Hospital wide approach to Performance Improvement		
					2.	Location/use of personal protective equipment		
Patients Rights Competency Checklist								
					1.	Patient rights and responsibilities		
					2.	Confidentiality Policy		
					4.	Organizational Ethics Policy		
Use of Biomedical Test Equipment								
					1.	Safety Analyzer		
					2.	Patient Simulator		
					3.	Defibrillation Analyzer		
					4.	Electrosurgical Unit Analyzer		
					5.	Blood Pressure Analyzer		
					6.	Infusion Pump Analyzer		
					7.	Anesthetic Gas Analyzer		
					8.	Respiratory/Ventilator Function Analyzer		
					9.	Multimeter		
					10.	Digital Pressure Meter		
					11.	Digital Thermometer		
					12.	Analog/Storage Oscilloscope		
					13.	Power Supply		
					14.	Frequency Counter/generator		
					15.	Function generator		
					16.	RF Meter		
					17.	Annual test equipment calibration & records		
					18.	Spectrum analyzer		
					19.	Hospital Specific (Site Coordinator)		
					20.	Hospital Specific (Site Coordinator)		

Site Supervisor Remarks/Notes:

Attendance Tracking					Standards (II)			Site Supervisor Performance Evaluation	
Date Started	Date Completed	Total Hours	Extern Initials	Supervisor Initials				Overall Rating	Date
Environmental Health and Safety									
					1.	Bloodborne Pathogens			
					2.	Hazardous Communications			
					3.	Energy Control			
					4.	Injury/Illness			
					5.	Emergency Contingency Plan			
					6.	Ergonomics/Back Safety			
Use of Computer-Based Equipment Maintenance Program									
					1.	Inventory-Addition, Deletion, and Modification			
					2.	Schedule Planned Maintenance			
					3.	Review of Equipment History			
					4.	Search Functions			
					5.	Open/Close Demand Work Orders			
					6.	Close PM Work Orders			
					7.	Knowledge of Activity/Failure Codes for tracking/trending			
					8.	Producing Reports			
Equipment Management Report to Safety Committee									
					1.	Standard Safety Committee Report			
					2.	Liaison Report			
					3.	Department “Could Not Locate” Equipment Report			

Site Supervisor Remarks/Notes:

Attendance Tracking					Standards (III)		Site Supervisor Performance Evaluation	
Date Started	Date Completed	Total Hours	Extern Initials	Supervisor Initials			Overall Rating	Date
Operation and Preventative Maintenance								
					1.	Alternating Pressure Pads		
					2.	Anesthesia Units (Specify Models), Vaporizers		
					3.	Apnea Monitor		
					4.	Intra-aortic Balloon Pump (Specify Model)		
					5.	Bilirubinometer/Bili Lights		
					6.	NIBP Units/Modules		
					7.	Invasive Blood Pressure Units/Modules (arterial, left ventricle, CVP)		
					8.	Blood Pump (Specify Model)		
					9.	Cardiac Output Computer (CO Module)		
					10.	Centrifuge		
					11.	Carbon Dioxide Module (CO2)		
					12.	Defibrillator		
					13.	Dialysis Equipment		
					14.	ECG Equipment		
					15.	EEG Equipment		
					16.	Electrosurgical Unit		
					17.	Fetal Monitors		
					18.	Fiberoptic Light Sources		
					19.	Holter Monitor System (Long Term ECG Recorders)		
					20.	Hypo/Hyperthermia units		
					21.	Infant Incubators/Isolette		
					22.	Infusion Pumps		
					23.	Laboratory Equipment		
					24.	Lasers, Optical		
					25.	Lasers, Surgical		
					26.	PCA Pumps		
					27.	Pulse Oximeters (SPO2)		
					28.	Physiological Monitoring Systems (hardwired with central, War Rooms)		
					29.	Physical Therapy Ultrasound		
					30.	Physical Therapy Muscle Stimulator		
					31.	IT networks, SAN's Cloud Computing		
					32.	Distributed Antenna systems		
					33.	Integration to EMR's/DataCaptor or other middleware		
					34.	Diagnostic Imaging Equipment: (expand for DI service BMET's)		
					35.	X-Ray, R&F, Digital Imaging		
					36.	CT		
					37.	Ultrasound		
					38.	MRI		
					39.	Mammography		
					40.	Nuclear Medicine, PET, Molecular		

Attendance Tracking					Standards (III) <div>(Continued)</div>			Site Supervisor Performance Evaluation	
Date Started	Date Completed	Total Hours	Extern Initials	Supervisor Initials				Overall Rating	Date
Operation and Preventative Maintenance									
					41.	PAC's			
					42.	Cath Lab			
					43.	Radiation Oncology			
					44.	Sterilizers			
					45.	Surgical Microscopes			
					46.	Surgical Operating Table			
					47.	Surgical Video Camera			
					48.	Traction Unit			
					49.	Telemetry Systems			
					50.	Ventilators (Specify Model)			
					51.	Other (Please Specify)			

List Additional Educational/Professional Achievements

Date	Remarks

Site Supervisor Remarks/Notes:

Date:	Extern Signature:
Date:	Supervisors Signature:
Date:	CBET Externship Coordinator Signature: